

JC17 Rec'd PCT/PTO 29 APR 2005

AMENDMENTS TO THE CLAIMS

*This listing of claims will replace all prior versions and listings of claims in the application.*

LISTING OF CLAIMS:

1. (Currently Amended) A device for feeding packages from a packaging machine, characterized by comprising a first, a second, a third and a fourth package driver {2-5} for transporting packages {6} in a transportation direction {T} from an infeed station {7} of the device {1} arranged to receive packages {6} from said packaging machine to an outfeed station {8} of the device {1}, said drivers {2-5} being arranged in pairs, so that the first and third drivers {2, 4} and the second and fourth drivers {3, 5} respectively are arranged diametrically in relation to each other about a common centre axis {C}, said drivers {2-5} being rotatable about the centre axis {C}.
  
2. (Currently Amended) A device as claimed in claim 1, wherein one driver {2-5} in one pair is arranged to engage the packages from behind in the transportation direction and one driver {2-5} in the other pair is arranged to engage the packages {6} from the front in the transportation direction {T}.
  
3. (Currently Amended) A device as claimed in claim 2, wherein the drivers {2-5} are arranged to rotate alternately in a first and second direction {T, R} about the centre axis {C}, the transportation direction {T} being in the first direction.

4. (Currently Amended) A device as claimed in claim 3, wherein the pair comprising the first and third drivers ~~(2, 4)~~ and the pair comprising the second and fourth drivers ~~(3, 5)~~, respectively, after each transportation of packages ~~(6)~~ to the outfeed station ~~(8)~~ are arranged to rotate in opposite directions ~~(T, R)~~.

5. (Currently Amended) A device as claimed in claim 3 or 4, wherein the first and third drivers ~~(2, 4)~~ are arranged to rotate in the first direction ~~(T)~~ after every second transportation of packages ~~(6)~~ to the outfeed station ~~(8)~~ and to rotate in the second direction ~~(R)~~ after every second transportation of packages ~~(6)~~ to the outfeed station ~~(8)~~.

6. (Currently Amended) A device as claimed in ~~any one of claims 3-5~~ claim 3, wherein the driver ~~(2-5)~~ which engages the packages ~~(6)~~ from behind, after transportation of the packages ~~(6)~~ to the outfeed station ~~(8)~~ is arranged to rotate in the second direction ~~(R)~~ to enable engagement with subsequent packages ~~(6)~~ at the infeed station ~~(7)~~ from the front, and wherein the driver ~~(2-5)~~ which engages the packages ~~(6)~~ from the front, after transportation of the packages ~~(6)~~ to the outfeed station ~~(8)~~ is arranged to rotate in the first direction ~~(T)~~ to enable engagement of the other driver ~~(2-5)~~ in the same pair with the subsequent packages ~~(6)~~ at the infeed station ~~(7)~~ from behind.

7. (Currently Amended) A device as claimed in ~~any one of the preceding claims~~ claim 1, wherein the drivers ~~(2-5)~~ are arranged to transfer the packages ~~(6)~~ to a conveyor belt ~~(23)~~ at the outfeed station ~~(8)~~, the conveyor belt ~~(23)~~ moving at a

conveyor belt speed, the drivers {2-5} being arranged to deliver the packages {6} at a speed essentially equal to the conveyor belt speed.

8. (Currently Amended) A device as claimed in ~~any one of the preceding claims~~ claim 1, further comprising turning means {14} for moving and turning packages {6} leaving the packaging machine upside down, placing the packages {6} turned the right way round at the infeed station {7} of the device {1}.

9. (Currently Amended) A device as claimed in ~~any one of the preceding claims~~ claim 1, wherein the transportation of the packages {6} occurs along part of a circle having a radius essentially equal to the radius of curvature of the rotation of the drivers {2-5}.

10. (Currently Amended) A device as claimed in claim 9, wherein the radius of curvature of the rotation of the drivers {2-5} is essentially equal to a radius of curvature of a path of movement of packages {6} leaving the packaging machine.

11. (Currently Amended) A device as claimed in ~~any one of the preceding claims~~ claim 1, wherein the drivers {2-5} are arranged to transport one package at a time from the infeed station {7} to the outfeed station {8}.

12. (Currently Amended) A device as claimed in ~~any one of claims 1-10~~ claim 1, wherein the drivers {2-5} are arranged to transport two or more packages {6} at a time from the infeed station {7} to the outfeed station {8}.

13. (Currently Amended) A device as claimed in claim 12, wherein the drivers (2-5) are arranged to push together said two or more packages (6) leaving the packaging machine with a distance between them, by means of rotating the drivers (2-5) engaging the packages (6) at the infeed station (7) relatively towards each other before transporting the packages (6) to the outfeed station (8).

14. (Currently Amended) A method of feeding packages (8) from a packaging machine, characterized by the steps of comprising:

receiving at an infeed station (7) adjacent to the packaging machine a first set of at least one package (6) between a first and a second package driver (2, 4), the first driver (2) being arranged in a pair with a third driver (4) and the second driver (3) being arranged in a pair with a fourth driver (5), the first and third drivers (2, 4) and the second and fourth drivers (3, 5) respectively being arranged diametrically in relation to each other around a common centre axis (G), said drivers (2-5) being rotatable about the centre axis (G),

transporting said at least one package (6) by means of rotation of the drivers (2-5) in a transportation direction (T) about the centre axis to an outfeed station (8), the first driver (2) moving behind and the second driver (3) moving in front of said at least one package (6), and

when said at least one package (6) has reached the outfeed station (8), returning the first driver (2) to the infeed station (7) and advancing the second driver (3) by rotation about the centre axis (G) so that the fourth driver (5) advances to the infeed station (7), the first and fourth drivers (2, 5) being ready to receive a second set of at least one package (6).

15. (Currently Amended) A method as claimed in claim 14, wherein the packages (6) are transferred to a conveyor belt (23) at the outfeed station (8), the conveyor belt (23) moving at a conveyor belt speed, the packages (6) being transported from the infeed station (7) to the outfeed station (8) at a speed essentially equal to the conveyor belt speed.

16. A method as claimed in claim 14 or 15, wherein the packages (6) are picked upside down from the packaging machine and turned and placed the right way round at the infeed station (7).

17. (Currently Amended) A method as claimed in ~~any one of claims 14-16~~ claim 14, wherein one package (6) at a time is fed from the packaging machine.

18. (Currently Amended) A method as claimed in ~~any one of claims 14-16~~ claim 14, wherein two or more packages (6) at a time are fed from the packaging machine.

19. (Currently Amended) A method as claimed in claim 18, wherein said two or more packages (6) are received at the infeed station (7) at a distance from each other,

pushed together by means of rotating the drivers (2-5) receiving the packages (6) relatively towards each other, and  
transported to the outfeed station (8) in abutment with each other.